Remarks/Arguments

In an Office Action dated August 10, 2006, an objection was made to the Abstract; claims 1-6, 14, 22-40, 42, 52, and 56 were objected to; claims 1, 2, 7, 12, 18, 22, 23, 28, 37, 41, 42, 47 and 53 were rejected under § 102 as anticipated by Crockett (USP 5,619,644); claims 3-6, 24-27 and 43-46 were rejected under § 103 as being unpatentable over Crockett in view of Banks (US 2005/0018619); claims 16, 17, 36, 57, and 58 were rejected under § 103 as being unpatentable over Crockett in view of Ofek (USP 5,901,327) and claims 8-11, 13-15, 19-21, 29-35, 38-40, 48-52, 54-56 and 59-61 were allowable. Applicants request reconsideration in view of the remarks below.

Abstract

A revised Abstract is provided. The use of "is described" is removed so that the first line now reads: [This disclosure describes] fault tolerant techniques to update a distributed database in a switched-fabric network. Applicants do recognize that portions of the title are contained in the first sentence but submit that it is necessary to provide context to the remainder of the Abstract. Applicants note that in many cases the Abstract is read in isolation from the title and submit that without the first sentence as provided, the remainder of the Abstract provides little to no context of the area of the specification and thus would very hard to understand.

Claim Objections

Claims 1-6 and 22-40 were objected to for using the word "Fibre" not "Fiber". Applicants submit that the proper spelling and capitalization is used and the requested change would actually be confusing. Accompanying this Amendment is an Information Disclosure Statement which includes portions of at least one Fibre Channel standard. As can be seen by reviewing it, Fibre Channel is a specific name of a technology and standard and Applicants are using it properly. To make changes to "fiber" would actually be against the well known industry standard. Therefore Applicants request reconsideration of this objection.

Amendments have been made to claims 14, 42 and 56 as suggested.

In claim 22 and similar claim 41 a colon has been added after the "to." This is submitted as being the proper way to indicate the series that follows.

In claim 52 the reference to "commit master" has been changed to "first switch" to more properly conform to the antecedent basis.

In claims 22, 23 and 28 references to "control means" have been changed to "control unit" to address an antecedent basis issue.

Section 102 Rejections

Claim 1

Claim 1 was rejected over Crockett. Applicants respectfully traverse the rejection.

Crockett relates to a system for collecting failure information in a distributed system. To that end it defines a new command DIAGNOSTIC STATE SAVE used to cause each relevant unit to perform a dump to capture failure information, which is then later collected and correlated. The underlying system in Crockett is performing fault tolerant operations by performing journaling operations (see col. 7, lines 26-29) but those journaling operations are independent of the DIAGNOSTIC STATE SAVE command and operations resulting from that command.

The Office Action first equated the secondary host 111 receiving control and data from the primary host 101 to the first element of claim 1, requiring receiving a first message from a commit master. This would indicate that the Office Action has equated the commit master as being the primary host. Applicants here note that the claim requires receiving "a first message."

The Office Action next assumes the primary host has an error, which is detected as identified at col. 9, ll. 45-67 and equates this to the claim requirement of detecting a loss of the commit master. Applicant here notes that the response in Crockett to such loss or error is to issue a DIAGNOSTIC STATE SAVE command.

The Office Action then equates col. 10, ll. 20-27 as meeting the claim requirement of resending the first message. Applicants traverse this point. Col. 10, ll. 20-27 only indicates that the DIAGNOSTIC STATE SAVE command can be sent secondary host. This is not resending the first message, the first message being sent in the first claim element as discussed above. This command would not be sent prior to the error detection because, as noted in col. 9, ll. 57-60, when received the environment is frozen. There could then be no error to detect as the system environment is frozen. The DIAGNOSTIC STATE SAVE command would only be sent <u>after</u> the error detection. Thus it cannot be the first message which is resent, as it was not previously sent.

The Office Action then equates the message to data and control updates from col. 9, ll. 45-60. First, this assertion conflicts with the equating of the resending being the operation of sending the DIAGNOSTIC STATE SAVE command as done by the Office Action in the prior portion of this element. Thus the Office Action is itself inconsistent, a clear indication of the improper nature of the rejection.

Second, as discussed above, the first message cannot be the DIAGNOSTIC STATE SAVE command. Assuming arguendo the first message is the record updates mentioned in col. 9, ll. 45-60, these updates would not be resent after an error according to Crockett, as Crockett indicates the system environment is frozen and the DIAGNOSTIC STATE SAVE command is sent after the error, thus effectively shutting the system down.

Therefore both assertions for equating to the first message of the claims are erroneous. Thus the rejection is improper and must be withdrawn.

The Office Action closes with analogizing aborting the update operation with col. 10, ll. 46-54, which is nothing more than a restatement of col. 9, l. 55 to col. 10, l. 4 where the issuance of the DIAGNOSTIC STATE SAVE command is described, the environment is frozen and then each device collects failure information. The Office Action apparently equates the record updates as the first message but this contradicts the claim requirement that the update operation is aborted only if the message did not include update data, as the message apparently defined by this portion of the Office Action <u>is</u> the

update data. Therefore this portion of the Office Action is also erroneous, yet a further reason the rejection is improper.

Applicants thus submit that the rejection is improper for many reasons and should be withdrawn.

Claim 22

As a first point, the arguments of claim 1 apply equally to claim 22 and are incorporated here.

As an additional point, the Office Action equates the control unit of claim 22 to be the secondary data mover 114. The citation to col. 9, ll. 45-67 and col. 10, ll. 20-21 is somewhat erroneous as there the data mover 104 is being discussed, not the data mover 114 which the Office Action has equated to be the control unit performing the operations, but Applicants assume that the data mover 114 could also detect the error condition. Notwithstanding all of the problems related to the resending element of the claim as discussed with claim 1 and which apply to claim 22, the Office Action then has the control unit, the data mover 114, resend the first message to the secondary site. Thus the Office Action has the control unit resending the message to itself. This is highly improper and clearly does not meet the claim language, so this is further reason claim 22 is allowable.

Claim 41

The argument provided for claims 1 and 22 apply equally to claim 41 so that it is allowable.

Claims 28 and 47

The rejection of these claims is improper, so that the claims are allowable in their own right.

As argued with respect to claim 22, the Office Action in this rejection would have the control unit or second switch identifying itself and then sending itself the abort message. This is further improper correspondence between Crockett and the present claims so that the claims are allowable.

Conclusion

      Based on the above remarks Applicants respectfully submit that all of the present claims are allowable. Reconsideration is respectfully requested.

                                  Respectfully submitted,

November 10, 2006
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